Tutor Demo – Create the Books Database

The purpose of this demonstration is to provide an introductory example of how to create a simple database in SQL Server Express and how to run some basic queries.

You are not expected to understand all of the syntax used in this demonstration at this point of the course. As you go further into the course, you will become more familiar with the T-SQL syntax.

To gain the most from doing this exercise, follow along by typing out each of the T-SQL commands shown below in SQL Server Express.

Our Goal:

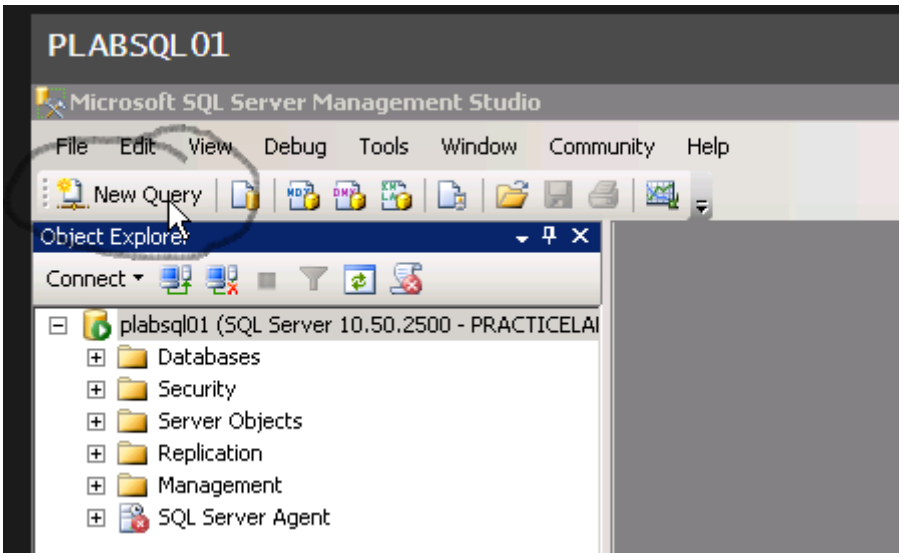
The goal is to create a database to store information about books. The following steps will be shown:

1: How to create a database
2: How to create a table in the database
3: How to insert records into a table
4: How to select records from a table
5: How to update a record in a table
6: How to delete a record in a table

I advise that you work through each part of the exercise, step by step, as this is a foundational exercise for the course.

Step 1: Create a new database:

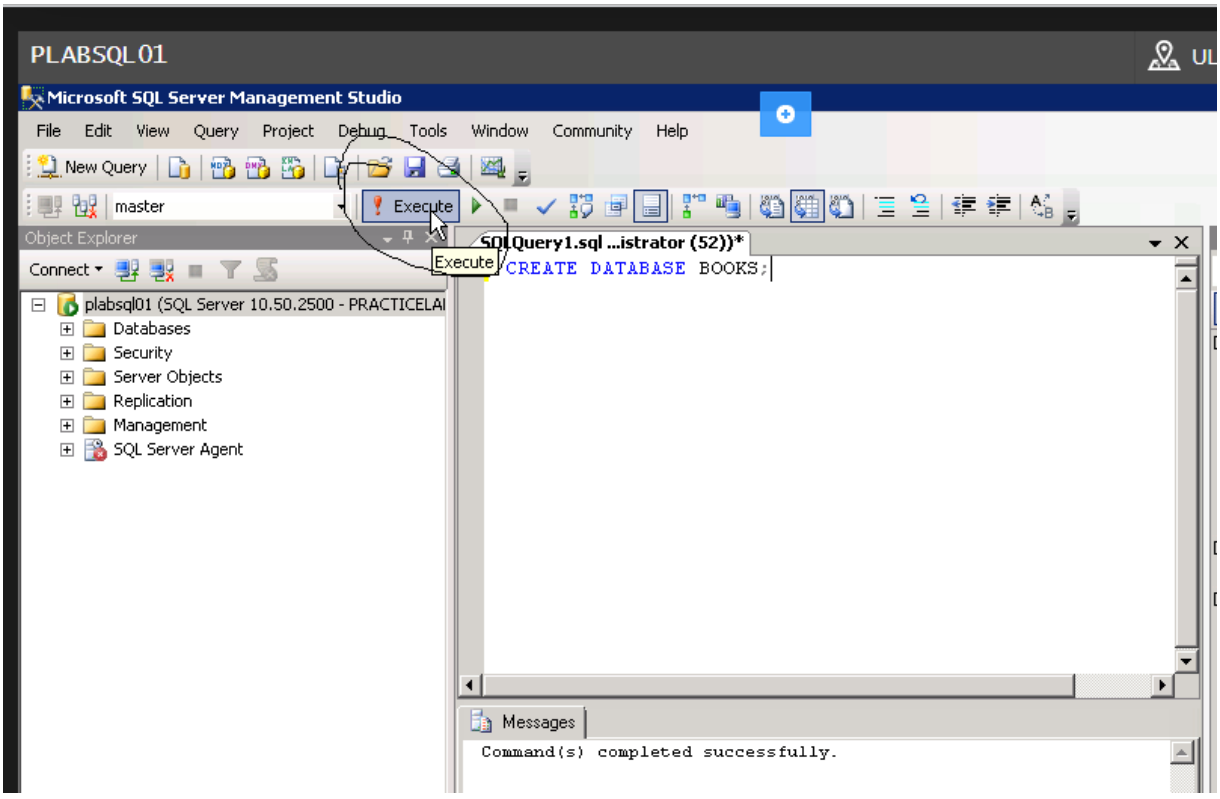
Open SQL Server Express. On the menu bar, select the *New Query* button.



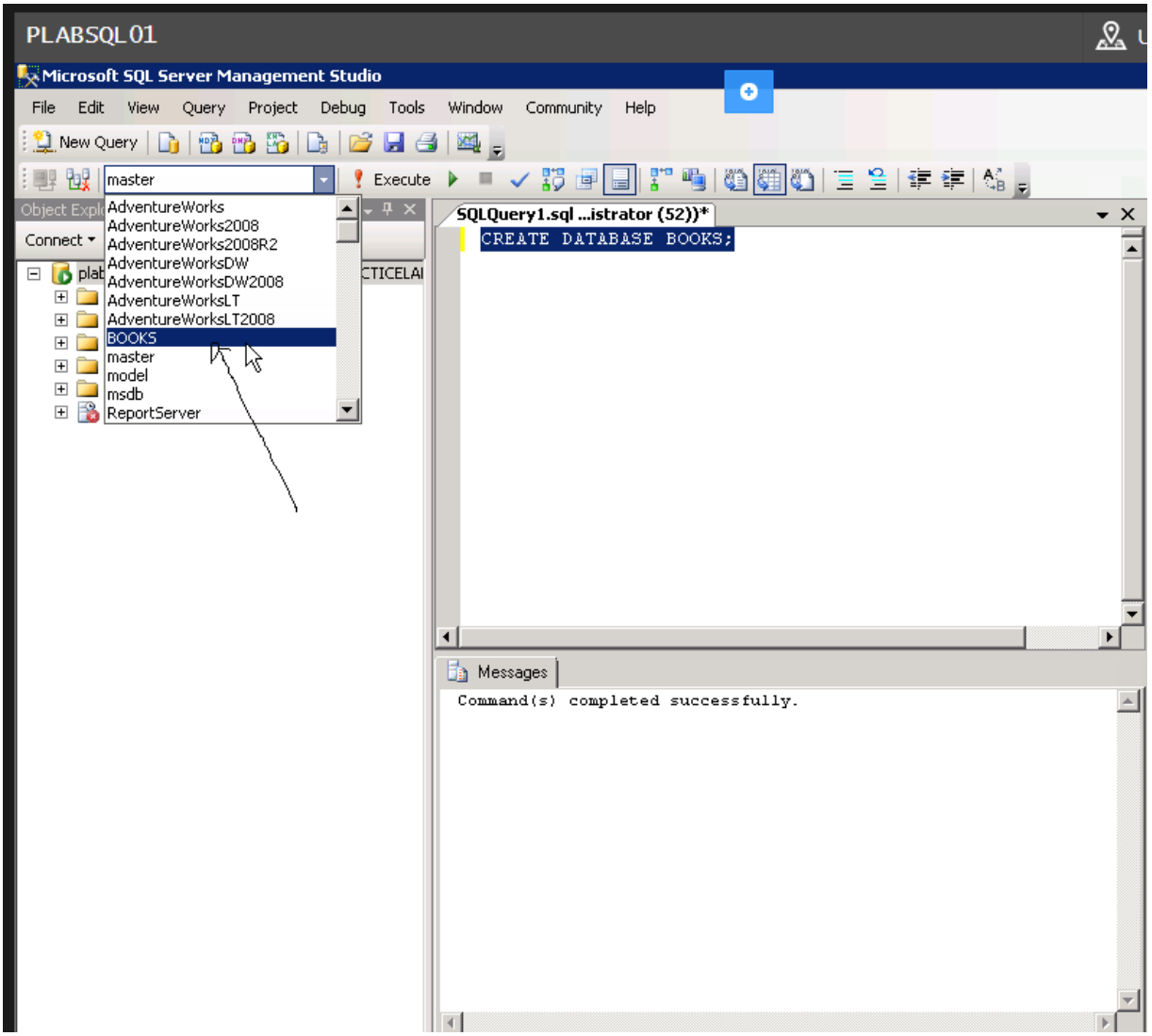
Type in to the code window that appears the following T-SQL statement:

CREATE DATABASE Books;

Next, press the *Execute Button* (see the screenshot below).



We will now make the Books Database the active database in SQL Server. Below, I have selected the Books database from the dropdown list.



Step 2: Create a table in the database:

Open a *New Query* Window (or else just delete the contents in the current query window)

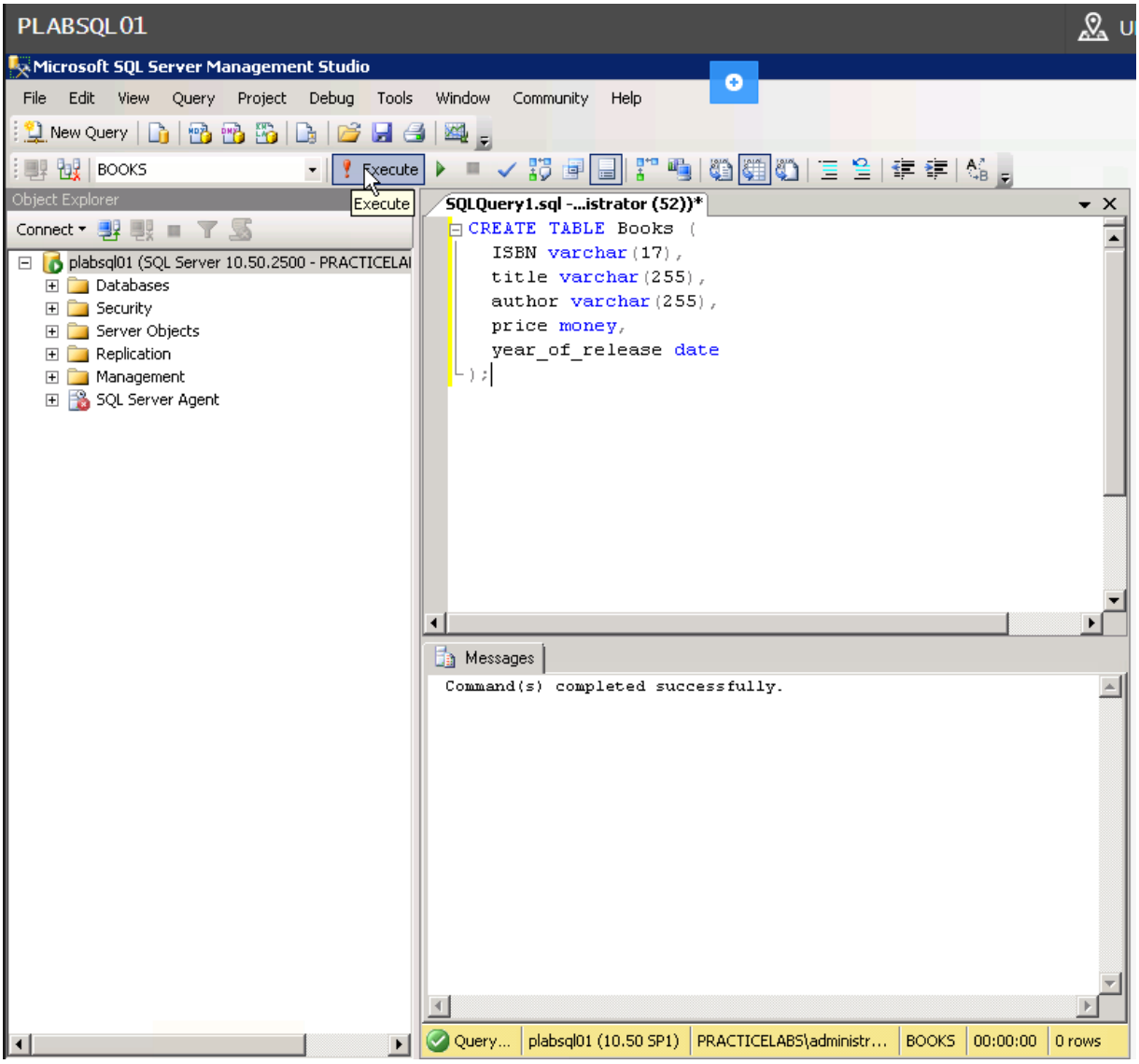
Type:

```
CREATE TABLE Books (
   ISBN varchar(17),
   title varchar(255),
   author varchar(255),
   price money,
   year_of_release date
);
```

Press the *Execute* Button.

* Note: The following URL provides an insight on the data types used in T-SQL. You will learn more about these data types in Topic 2 of the course.
https://docs.microsoft.com/en-us/sql/t-sql/data-types/data-types-transact-sql?view=sql-server-ver15

See screenshot below.



Step 3: Insert some records into the table:

Open a *New Query* Window (or else just delete the contents in the current query window)

Type:

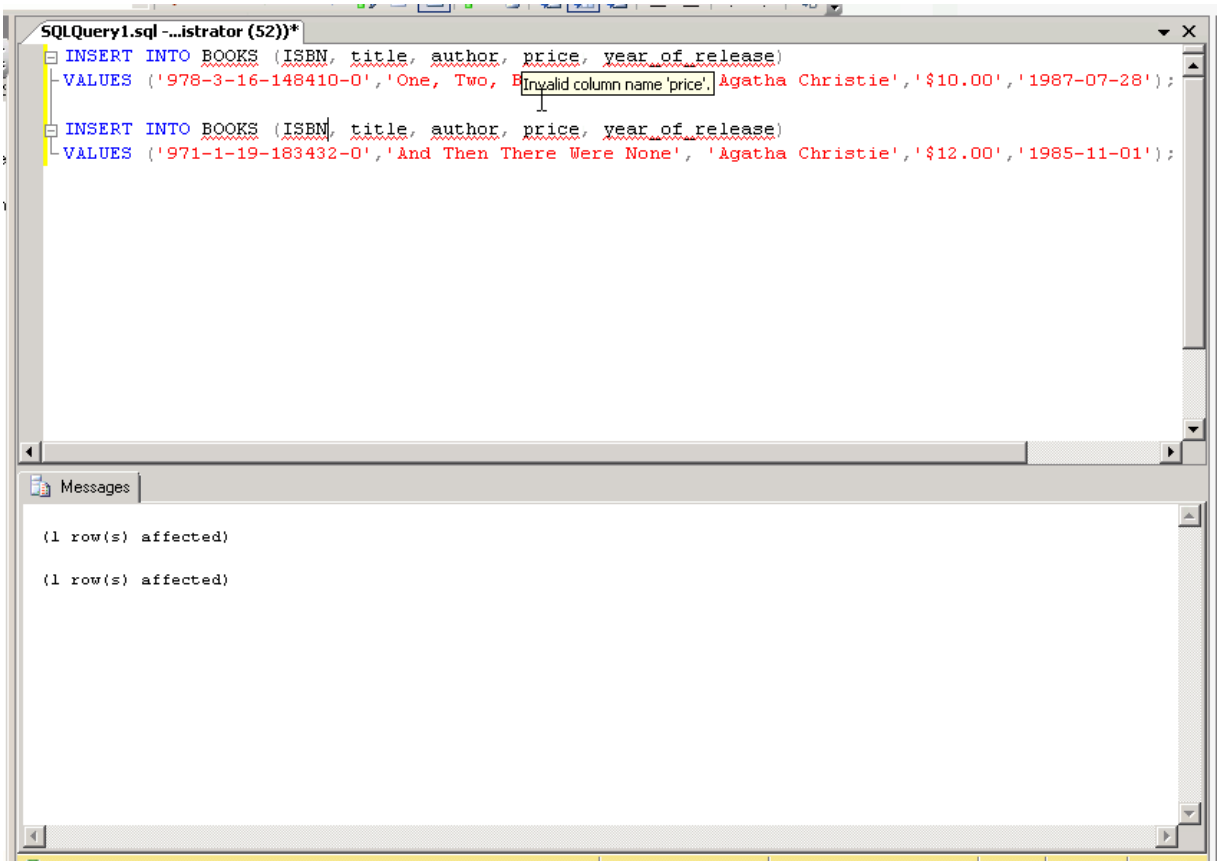
```
INSERT INTO Books (ISBN, title, author, price, year_of_release)
VALUES ('978-3-16-148410-0', 'One, Two, Buckle My Shoe', 'Agatha Christie', '$10.00',
'1987-07-28');

INSERT INTO Books (ISBN, title, author, price, year_of_release)
VALUES ('971-1-19-183432-0', 'And Then There Were None', 'Agatha Christie', '$12.00',
'1985-11-01');
```

Press the *Execute* Button.

Two records should now be added to the Books table.

See Screenshot Below



Step 4: Select all the records in the table:

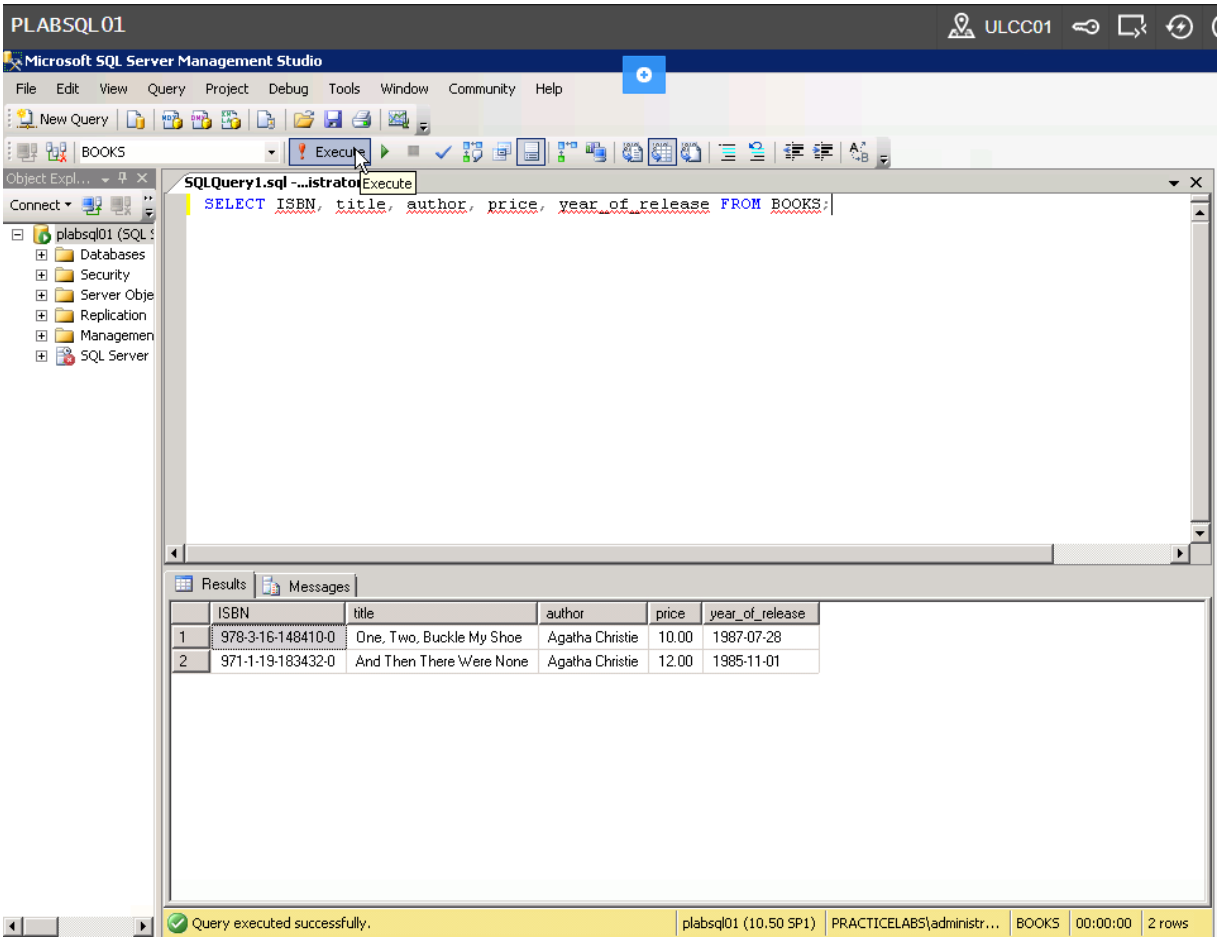
Open a *New Query* Window (or else just delete the contents in the current query window)

Type:

SELECT ISBN, title, author, price, year_of_release FROM Books;

Press the *Execute* Button.

See Screenshot below.



Step 5: Update a record in the table:

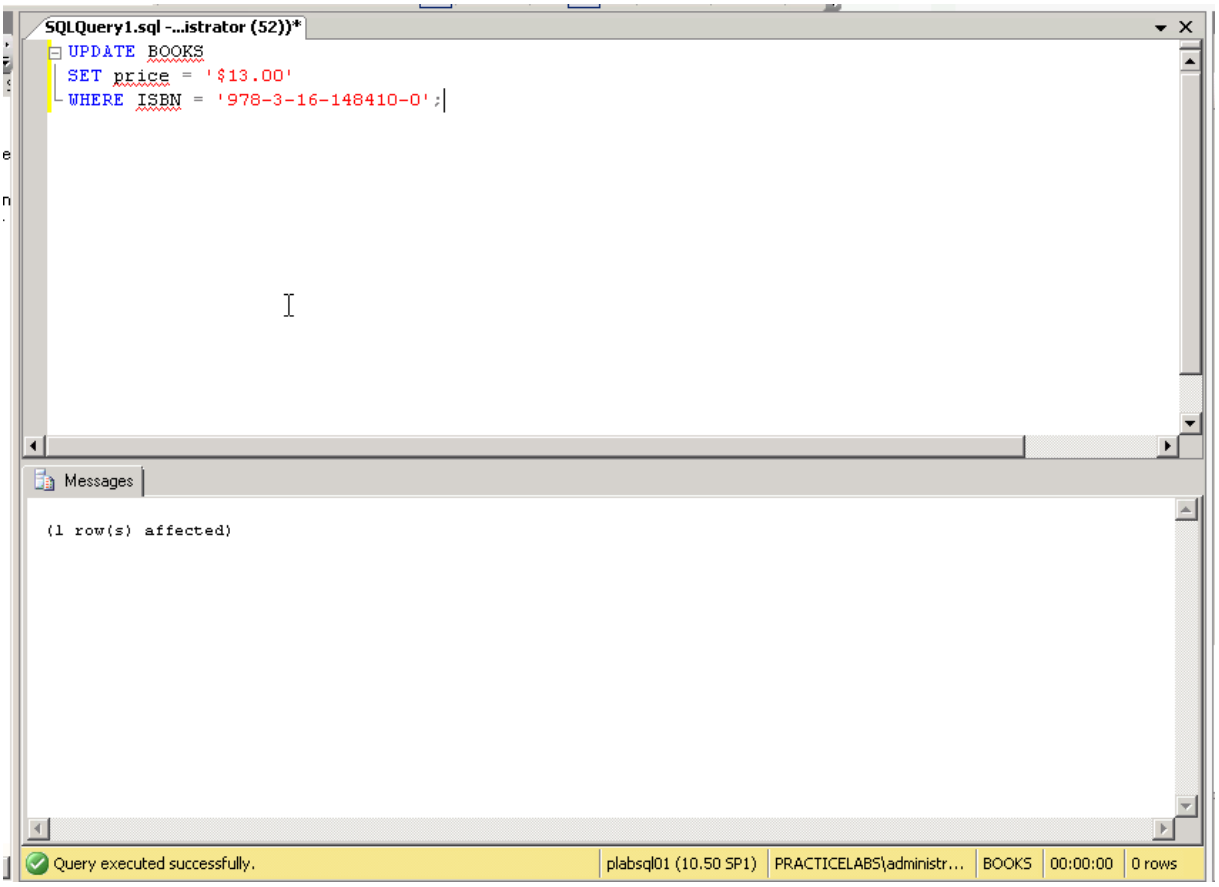
Open a *New Query* Window (or else just delete the contents in the current query window)

Type:

```
UPDATE Books
SET price = '$13.00'
WHERE ISBN = '978-3-16-148410-0';
```

Press the *Execute* Button.

See Screenshot below.



Step 6: Delete a record in the table:

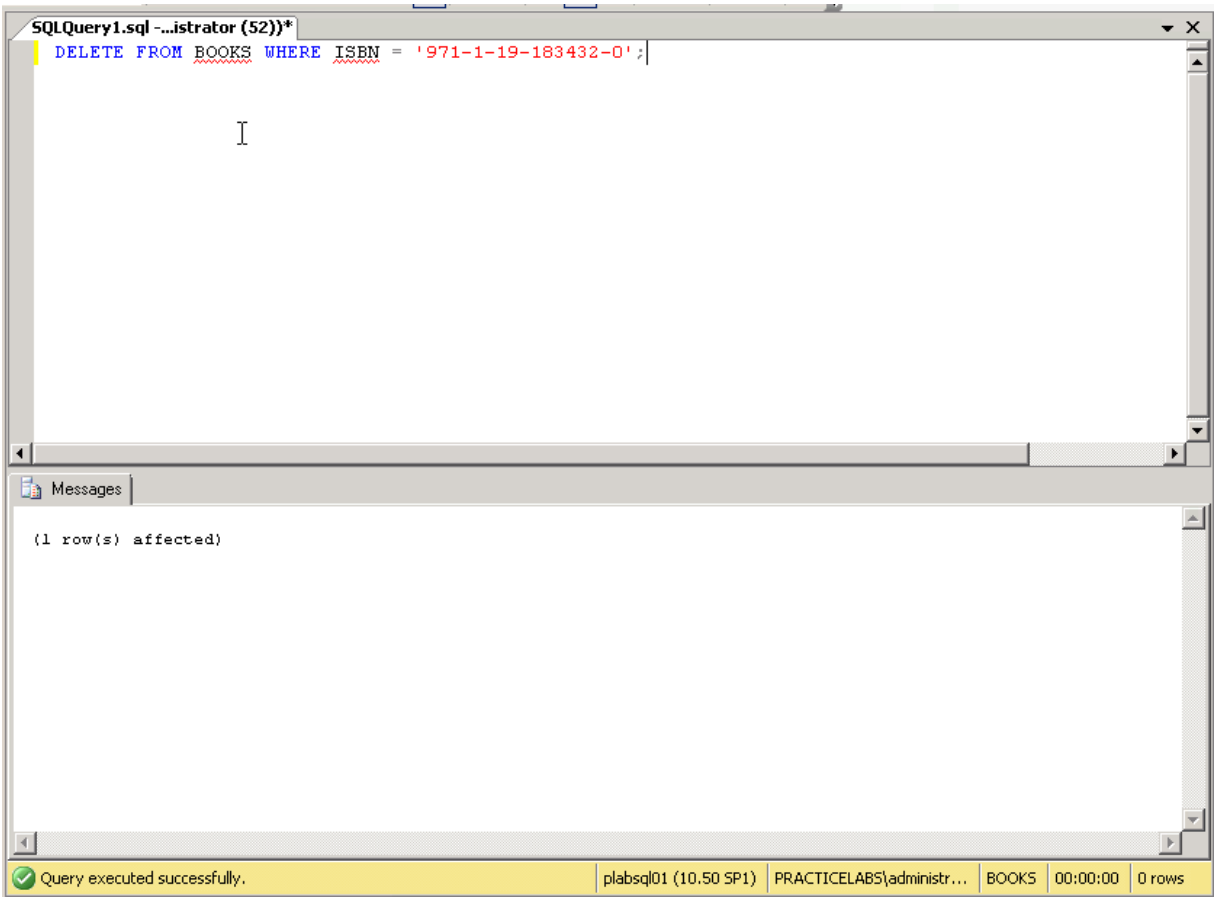
Open a *New Query* Window (or else just delete the contents in the current query window)

Type:

DELETE FROM Books WHERE ISBN = '971-1-19-183432-0';

Press the *Execute* Button.

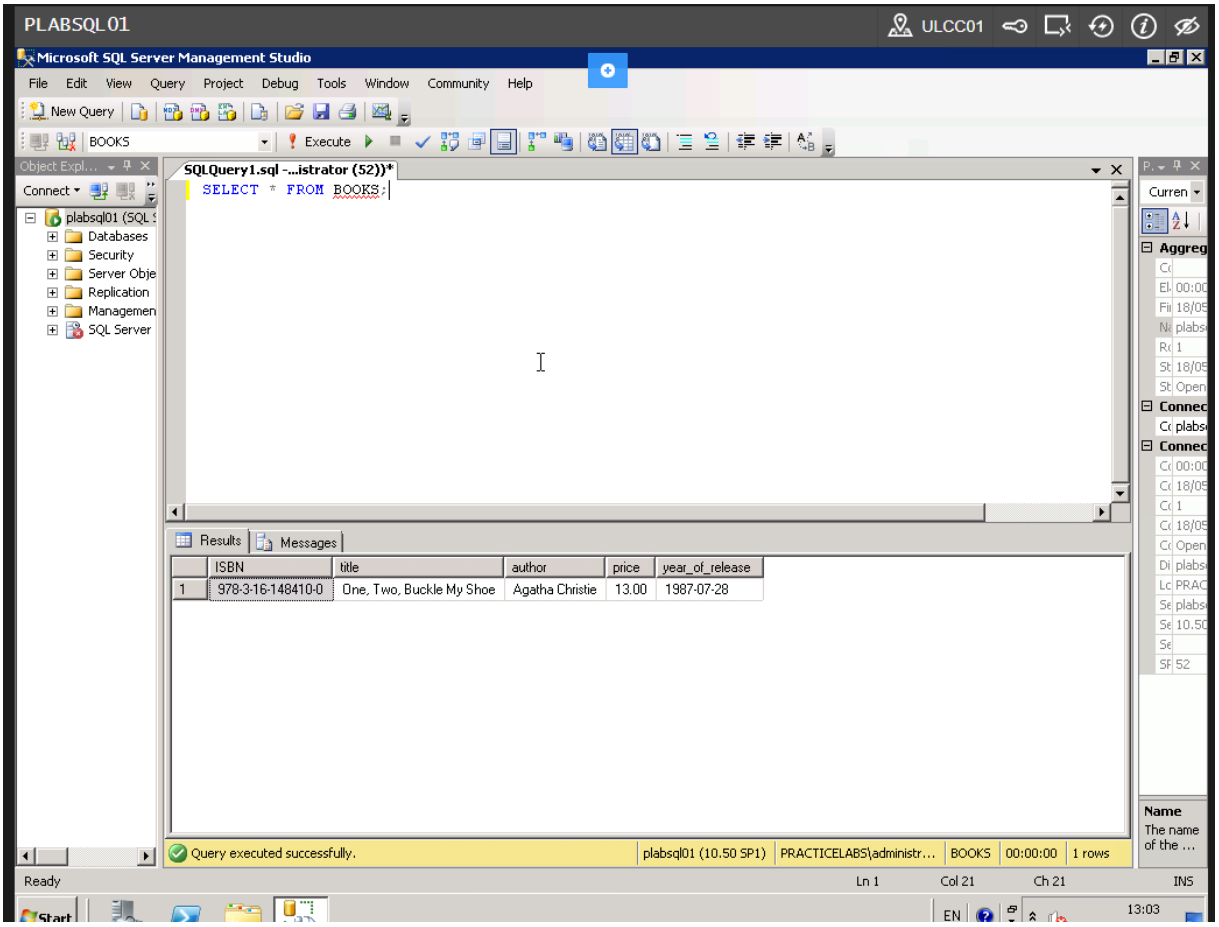
See Screenshot below



There should now be one record remaining in the table. Write another select statement and you should see the following record:

978-3-16-148410-0 - One, Two, Buckle My Shoe - Agatha Christie - 13.00 - 1987-07-28

See Screenshot below.
Note: In the SELECT statement (shown on the next page), I have used the SQL wildcard character *, which will select all of the columns in the record. This saves us from having to type out each column name, like we did in the earlier SELECT statement.



Well done! You have created your first database and ran some queries!